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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,672	05/21/2004	James W. Adkisson	BUR920040002US1	3671

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HOFFMAN WARNICK & D'ALESSANDRO, LLC
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EXAMINER

MERANT, GUERRIER

ART UNIT	PAPER NUMBER
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2117

MAIL DATE	DELIVERY MODE
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09/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/709,672	Applicant(s) ADKISSON ET AL.	
	Examiner Guerrier Merant	Art Unit 2117	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/09/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


GUY LAMARRE
PRIMARY EXAMINER

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. **This is response to the applicants'** A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/09/07 has been entered.

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morioka et al. (US 6,611,728) in view of Gillenwater et al. (US 6,557,115) and further in view of Lindberg et al (US 5,663,967).

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5. Claims 1, 9, 10,15 and 18-20: Morioka et al substantially teaches a defect table (e.g. *item 111, fig. 1*) that associates previously studied features with known failures (e.g. col. 8, lines 36-62); and a fault isolation system that compares an inputted set of suspected faulty device features with the previously studied features listed in the defect table in order to identify causes of the fail (e.g. col. 9, lines 9-30 & col. 11, lines 17-34). But Morioka et al fails to teach re-using the defected information stored in the defected table to diagnose a failure in an electronic device. However Gillenwater et al teaches a real-time test controller for diagnostic devices during manufacturing processes. The real-time test controller maintains a failure database (item 40, Fig. 2) containing a history of past failures for devices under test and selectively sorts the history for the device to be tested (abstract). Therefore at the time of the invention, one of ordinary skill in the art would have found it obvious to re-use the defected information stored in the defected table of Morioka et al. to diagnose failures occurring in products under test in order to eliminate wasted time in the testing process and to concentrate on known testing difficulties, thereby providing the manufacturer, and ultimately the costumer, with a substantial savings (col. 3, lines 9-16; Gillenwater et al).

But Morioka et al and Gillenwater et al fail to explicitly teach the inputted set of suspected faulty device features is generated from a simulation program that programmatically simulates operation of the electronic device in a virtual environment. However, Lindberg et al teaches a diagnosis system for diagnosing a failure in an electronic device using a simulation program to simulate the operation of the device (e.g. col. 7, lines 45-59). Therefore, at the time the invention was made, it would have

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been obvious to a person of ordinary skill in the art to implement the diagnostic system of Morioka et al and Gillenwater et al with the system taught by Lindberg et al in order to detect and locate defects in the integrated circuit (e.g. col. 2, lines 50-57; Lindberg et al).

6. Claims 2-4, 6, 8, 11-13 and 17: Morioka et al and Gillenwater et al in view of Lindberg et al teach a diagnosis system as in claims 1, 9, and 15 above, wherein the previously studied features are selected from the group consisting of: net names, instance names, cell names, physical attributes, logical attributes, presence of a feature, and absence of a feature (col.20, lines 45-67 & col. 11, lines 14-34; Morioka et al).

7. Claim 5: Morioka et al and Gillenwater et al in view of Lindberg et al teach a diagnosis system as in claim 1 above, wherein the simulation program utilizes device logic and operational logs to identify faulty device features (e.g. col. 3, lines 13-29; col. 5, lines 28-48; Lindberg et al).

8. Claims 7, 14, and 16: Morioka et al and Gillenwater et al in view of Lindberg et al teach a diagnosis system as in claims 1, 9, and 15 above, further comprising a table update system for maintaining and updating the defect table (col. 23, lines 15-26, Fig. 30; Morioka et al).


Conclusion

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. Merant Guerrier whose telephone number is (571) 270-1066. The examiner can normally be reached Monday through Thursday from 10:30 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis Jacques, can be reached on (571) 272-6962. Draft or Informal faxes, which will not be entered in the application, may be submitted directly to the examiner at (571) 270-2066.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Guerrier Merant
08/22/07